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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,306	05/29/2001	Ki J. Yoon	2529-000059	6141
27572	7590	12/16/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			REID, CHERYL M	
			ART UNIT	PAPER NUMBER
			2142	
DATE MAILED: 12/16/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/867,306

Applicant(s)

YOON ET AL.

Examiner

Cheryl M. Reid

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Specification***

***Objection to Abstract***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. Applicant's abstract is too lengthy. Proper correction is required.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being unclear and indefinite. The claim is generally narrative and indefinite, failing to conform with current U.S. practice. The grammar that is used is unclear; as a result examiner does not understand what applicant is saying. Examiner has interpreted claim 5 as follows: user connects to internet using ADSL service provided by telecommunication company,

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and user is dynamically assigned an IP address. The above interpretation has been used to examine claim 5.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Rao.

**Claim 1**

Rao teaches of a user connecting to an internet through a dial-up subscriber and performing packet filtering (Col 2, lines 15-17, Col 9, lines 22-24); providing private network address to the user.....(Col 9, lines 58-60, Col 20, lines 1-5)); forming a virtual tunnel to connect to.....(Col 23, lines 42-44,48-49).

***Claim Rejections - 35 USC § 103***

4. Claim 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao as applied to claim 1 above, and further in view of Hurren.

**Claim 2 and 6**

- Rao is silent in regards to private IP networks built in the internet data centers at plural places operate as one network..... Hurren teaches on this aspect (Col 1, lines 34-37, 42-45). Rao system deals with providing a system that offers private, secure communication environment for multiple sharing subscribers (Col 2, lines 5-7). Hurren's invention relates to services that provides a large number of virtual private networks (VPN). Adding the above mentioned feature to Rao's invention would result in a more secure communication system. It is for this reason that one of ordinary skill in the art at the time of invention would be motivated to make the above mentioned modifications.
5. Claim 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao and Hurren as applied to claim 2 above, and further in view of Boudreau.

**Claim 3 and 8**

- Rao and Hurren are both silent in regards to connecting the subscriber connected to an internet data center to a layer-4 switching hub equipment in

case that the subscriber is authorized by performing a load balance of the subscriber in a communication equipment firstly connected through the private network, after the step (1); and (5) performing the load balance of the subscriber server and the packet filtering after providing the private IP address to the user, after the step (2). Boudreau teaches about performing load balancing function in response to a connection request (Col 3, lines 60-63). It should be noted that although Boudreau did not explicitly state that the subscriber is connected to the layer-4 switching hub equipment, it is implicitly implied. Layer 4 relates to flow control of data (load balancing) and error-handling. Boudreau's invention does both of these load balancing (Fig 1) and error-handling (Fig 6). Rao's invention relates to providing a network switch that is capable of providing fault-tolerant and efficient services (Col 2, lines 1-3). Adding the above mentioned feature to Rao would increase his system's fault-tolerance and efficiency. It is for this reason that one of ordinary skill in the art at the time of invention would have been motivated to make the above mentioned modifications.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rao.

**Claim 4**

- Rao teaches of packet filtering when user connects to a private network (Col 8, lines 65-67, Col 9, lines 1-3, lines 22-24); performing a user authentication in a

user authentication server (Col 9, lines 53-54); allowing if the user is an authorized subscriber, the subscriber to use a private network service by providing a different private IP address.....(Col 20, lines 41-45). It should be noted that although Rao did not explicitly teach that a private IP address was assigned, this is inherent. Rao teaches about packet filtering (Col 9, lines 32-35). He is silent in regards to how many times a packet is filtered. It is well known in the art that packet filtering increases the efficiency of communication systems by ensuring that packets are directed to specific routers. Rao's invention relates to providing a network switch that is capable of providing fault-tolerant and efficient services (Col 2, lines 1-3). Adding the above mentioned feature to Rao would increase his system's fault-tolerance and efficiency. It is for this reason that one of ordinary skill in the art at the time of invention would have been motivated to make the above mentioned modifications.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rao as applied to claim 1 above, and further in view of Giniger.

#### **Claim 5**

- Rao is silent in regards to user connects to internet using ADSL service provided by telecommunication company and user is dynamically assigned an IP address. Giniger teaches about user connects to internet using ADSL service (Col 10, lines 17-18) and user being dynamically assigned an IP

address (Col 11, lines 59-63). Rao's invention relates to providing a network switch that is capable of providing fault-tolerant and efficient services (Col 2, lines 1-3). Giniger invention relates to providing optimum transmission (Col 6, lines 32-35). It is well know in the arts that one of the major advantages of ADSL is faster connections. Adding the above mentioned feature to Rao's invention would result in a more efficient system. It is for this reason that one of ordinary skill in the art at the time of invention would be motivated to make the above mentioned modifications.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rao and Giniger as applied to claim 5 above, and further in view of Hurren.

#### **Claim 7**

- Rao and Giniger are both silent in regards to private IP networks built in the internet data centers at plural places operate as one network. Hurren teaches on this aspect (Col 1, lines 34-37, lines 42-45). One of ordinary skill in the art would be motivated to make the above mentioned modifications for the same reasons discussed in Claim 2.



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9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rao, Giniger, and Hurren as applied to claim 7 above, and further in view of Boudreau.

**Claim 9**


- Rao, Giniger, and Hurren are all silent in regards to connecting the subscriber connected to an internet data center to a layer-4 switching hub equipment in case that the subscriber is authorized by performing a load balance of the subscriber in a communication equipment firstly connected through the private network, after the step (1); and (5) performing the load balance of the subscriber server and the packet filtering after providing the private IP address to the user, after the step (2). Boudreau teaches about performing load balancing function in response to a connection request (Col 3, lines 60-63). It should be noted that although Boudreau did not explicitly state that the subscriber is connected to the layer-4 switching hub equipment, it is implicitly implied. Layer 4 relates to flow control of data (load balancing) and error-handling. Boudreau's invention does both of these load balancing (Fig 1) and error-handling (Fig 6). Rao's invention relates to providing a network switch that is capable of providing fault-tolerant and efficient services (Col 2, lines 1-3). Adding the above mentioned feature to Rao would increase his system's fault-tolerance and efficiency. It is for this reason that one of ordinary skill in the art at the time of invention would have been motivated to make the above mentioned modifications.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl M. Reid whose telephone number is 571 272 3903. The examiner can normally be reached on Mon- Fri (7-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on (571)272-3896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmr

  
JACK D. HARVEY  
SUPERVISORY PATENT EXAMINER

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